1195781.txt SEQUENCE LISTING

<110>	DIAGNOCURE INC.	
<120>	METHOD TO DETECT PROSTAGE CANCER IN A SAMPLE	
<130>	11957.81	
<150> <151>	us 60/445,436 2003-02-07	
<160>	13	
<170>	PatentIn version 3.2	
<210> <211> <212> <213>	1 47 DNA Homo sapiens	
<400> aattct	1 aata cgactcacta tagggaggat gaaacaggct gtgccga	47
<210> <211> <212> <213>	2 20 DNA Homo sapiens	
<400> agcatt	2 ccca accctggcag	20
	3 45 DNA Homo sapiens	
<400> aattct	3 aata cgactcacta tagggcctgc ccatccttta aggaa	45
<210> <211> <212> <213>	4 20 DNA Homo sapiens	
<400> caggaa	4 gcac aaaaggaagc	20
<210> <211> <212> <213>	5 26 DNA Homo sapiens	
<220> <221> <222> <223>	<pre>misc_feature (1)(1) n = ROX</pre>	
<220>		

<221> <222> <223>	misc_feature (26)(26) n = DABCYL		1133701			
<400> ncccag	5 tctg cggcggtgtt	ctgggn				26
<210> <211> <212> <213>	6 30 DNA Homo sapiens					
<220> <221> <222> <223>	misc_feature (1)(1) n = FAM					
<220> <221> <222> <223>	misc_feature (30)(30) n = DABCYL					
<400> ncgctt	6 gtga gggaaggaca	ttagaagcgn				30
<210> <211> <212> <213>	7 506 DNA Homo sapiens					
<400>	7 gcac aaaaggaagc	acananntaa	ntnctttata	aancactcaa	tttctactca	60
	tttg atggccttaa					120
	tcca ctaccgattt				_	180
	ctca cggagtctgg		-			240
	tttc acagatccct				_	300
	ctgt gcctggtccc	_				360
	agga tgggcaggaa					420
	aaat gaagtcacca					480
	ggct tcacaagaca		3 3		3 3	506
<210> <211> <212> <213>	8 278 DNA Homo sapiens					
<400> caggaa	8 gcac aaaaggaagc	acagagatcc	ctgggagaaa	tgcccggccg	ccatcttggg	60
tcatcg	atga gcctcgccct	gtgcctggtc	ccgcttgtga	gggaaggaca	ttagaaaatg	120

180 aattgatgtg ttccttaaag gatgggcagg aaaacagatc ctgttgtgga tatttatttg aacgggatta cagatttgaa atgaagtcac caaagtgagc attaccaatg agaggaaaac 240 278 agacgagaaa atcttgatgg cttcacaaga catgcaac <210> 9 2036 <211> <212> DNA <213> Homo sapiens <220> <221> misc_feature (1472)..(1472)<222> <223> n is a, c, g, or t <220> <221> misc_feature (1517)..(1517) <222> <223> n is a, c, g, or t <220> misc_feature <221> <222> (1563)..(1563)n is a, c, g, or t <223> <400> agaagctggc atcagaaaaa cagaggggag atttgtgtgg ctgcagccga gggagaccag 60 gaagatctgc atggtgggaa ggacctgatg atacagagga attacaacac atatacttag 120 tgtttcaatg aacaccaaga taaataagtg aagagctagt ccgctgtgag tctcctcagt 180 240 gacacagggc tggatcacca tcgacggcac tttctgagta ctcagtgcag caaagaaaga ctacagacat ctcaatggca ggggtgagaa ataagaaagg ctgctgactt taccatctga 300 ggccacacat ctgctgaaat ggagataatt aacatcacta gaaacagcaa gatgacaata 360 taatgtctaa gtagtgacat gtttttgcac atttccagcc cctttaaata tccacacaca 420 caggaagcac aaaaggaagc acagagatcc ctgggagaaa tgcccggccg ccatcttggg 480 tcatcgatga gcctcgccct gtgcctggtc ccgcttgtga gggaaggaca ttagaaaatg 540 aattgatgtg ttccttaaag gatgggcagg aaaacagatc ctgttgtgga tatttatttg 600 660 aacgggatta cagatttgaa atgaagtcac aaagtgagca ttaccaatga gaggaaaaca 720 gacgagaaaa tcttgatggc ttcacaagac atgcaacaaa caaaatggaa tactgtgatg acatgaggca gccaagctgg ggaggagata accacggggc agagggtcag gattctggcc 780 ctgctgccta aactgtgcgt tcataaccaa atcatttcat atttctaacc ctcaaaacaa 840 900 agctgttgta atatctgatc tctacggttc cttctgggcc caacattctc catatatcca gccacactca tttttaatat ttagttccca gatctgtact gtgacctttc tacactgtag 960 aataacatta ctcattttgt tcaaagaccc ttcgtgttgc tgcctaatat gtagctgact 1020

1195781.txt gtttttccta aggagtgttc tggcccaggg gatctgtgaa caggctggga agcatctcaa 1080 gatctttcca gggttatact tactagcaca cagcatgatc attacggagt gaattatcta 1140 1200 atcaacatca tcctcagtgt ctttgcccat actgaaattc atttcccact tttgtgccca 1260 ttctcaagac ctcaaaatgt cattccatta atatcacagg attaactttt ttttttaacc 1320 tggaagaatt caatgttaca tgcagctatg ggaatttaat tacatatttt gttttccagt gcaaagatga ctaagtcctt tatccctccc ctttgtttga ttttttttcc agtataaagt 1380 1440 taaaatgctt agccttgtac tgaggctgta tacagcacag cctctcccca tccctccagc 1500 cttatctgtc atcaccatca acccctccca tnysacctaa acaaaatcta acttgtaatt 1560 ccttgaacat gtcaggncat acattrttcc ttctgcctga gaagctcttc cttgtctctt aantctagaa tgatgtaaag ttttgaataa gttgactatc ttacttcatg caaagaaggg 1620 1680 acacatatga gattcatcat ccatgagaca gcaaatacta aaagtgtaat ttgattataa 1740 gagtttagat aaatatatga aatgcaagak ccacagaggg aatgtttatg gggcacgttt 1800 gtaagcctgg gatgtgaagm aaaggcaggg aacctcatag tatcttatat aatatacttc 1860 atttctctat ctctatcaca atatccaaca agcttttcac agaattcatg cagtgcaaat 1920 ccccaaaggt aacctttatc catttcatgg tgagtgcgct ttagaatttt ggcaaatcat actggtcact tatctcaact ttgagatgtg tttgtccttg tagttaattg aaagaaatag 1980 2036 ggcactcttg tgagccactt tagggttcac tcctggcaat aaagaattta caaaga <210> 10 3582 DNA Homo sapiens <400> 10 60 acagaagaaa tagcaagtgc cgagaagctg gcatcagaaa aacagagggg agatttgtgt 120 ggctgcagcc gagggagacc aggaagatct gcatggtggg aaggacctga tgatacagag gaattacaac acatatactt agtgtttcaa tgaacaccaa gataaataag tgaagagcta 180 gtccgctgtg agtctcctca gtgacacagg gctggatcac catcgacggc actttctgag 240 tactcagtgc agcaaagaaa gactacagac atctcaatgg caggggtgag aaataagaaa 300 ggctgctgac tttaccatct gaggccacac atctgctgaa atggagataa ttaacatcac 360 tagaaacagc aagatgacaa tataatgtct aagtagtgac atgtttttgc acatttccag 420 480 cccctttaaa tatccacaca cacaggaagc acaaaaggaa gcacagagat ccctgggaga aatgcccggc cgccatcttg ggtcatcgat gagcctcgcc ctgtgcctgg tcccgcttgt 540 gagggaagga cattagaaaa tgaattgatg tgttccttaa aggatgggca ggaaaacaga 600 tcctgttgtg gatatttatt tgaacgggat tacagatttg aaatgaagtc acaaagtgag 660

			1195781	.txt		
cattaccaat	gagaggaaaa	cagacgagaa	aatcttgatg	gcttcacaag	acatgcaaca	720
aacaaaatgg	aatactgtga	tgacatgagg	cagccaagct	ggggaggaga	taaccacggg	780
gcagagggtc	aggattctgg	ccctgctgcc	taaactgtgc	gttcataacc	aaatcatttc	840
atatttctaa	ccctcaaaac	aaagctgttg	taatatctga	tctctacggt	tccttctggg	900
cccaacattc	tccatatatc	cagccacact	catttttaat	atttagttcc	cagatctgta	960
ctgtgacctt	tctacactgt	agaataacat	tactcatttt	gttcaaagac	ccttcgtgtt	1020
gctgcctaat	atgtagctga	ctgtttttcc	taaggagtgt	tctggcccag	gggatctgtg	1080
aacaggctgg	gaagcatctc	aagatctttc	cagggttata	cttactagca	cacagcatga	1140
tcattacgga	gtgaattatc	taatcaacat	catcctcagt	gtctttgccc	atactgaaat	1200
tcatttccca	cttttgtgcc	cattctcaag	acctcaaaat	gtcattccat	taatatcaca	1260
ggattaactt	tttttttaa	cctggaagaa	ttcaatgtta	catgcagcta	tgggaattta	1320
attacatatt	ttgttttcca	gtgcaaagat	gactaagtcc	tttatccctc	ccctttgttt	1380
gattttttt	ccagtataaa	gttaaaatgc	ttagccttgt	actgaggctg	tatacagcac	1440
agcctctccc	catccctcca	gccttatctg	tcatcaccat	caacccctcc	cataccacct	1500
aaacaaaatc	taacttgtaa	ttccttgaac	atgtcaggac	atacattatt	ccttctgcct	1560
gagaagctct	tccttgtctc	ttaaatctag	aatgatgtaa	agttttgaat	aagttgacta	1620
tcttacttca	tgcaaagaag	ggacacatat	gagattcatc	atcacatgag	acagcaaata	1680
ctaaaagtgt	aatttgatta	taagagttta	gataaatata	tgaaatgcaa	gagccacaga	1740
gggaatgttt	atggggcacg	tttgtaagcc	tgggatgtga	agcaaaggca	gggaacctca	1800
tagtatctta	tataatatac	ttcatttctc	tatctctatc	acaatatcca	acaagctttt	1860
cacagaattc	atgcagtgca	aatccccaaa	ggtaaccttt	atccatttca	tggtgagtgc	1920
gctttagaat	tttggcaaat	catactggtc	acttatctca	actttgagat	gtgtttgtcc	1980
ttgtagttaa	ttgaaagaaa	tagggcactc	ttgtgagcca	ctttagggtt	cactcctggc	2040
aataaagaat	ttacaaagag	ctactcagga	ccagttgtta	agagctctgt	gtgtgtgtgt	2100
gtgtgtgtgt	gagtgtacat	gccaaagtgt	gcctctctct	cttgacccat	tatttcagac	2160
ttaaaacaag	catgttttca	aatggcacta	tgagctgcca	atgatgtatc	accaccatat	2220
ctcattattc	tccagtaaat	gtgataataa	tgtcatctgt	taacataaaa	aaagtttgac	2280
ttcacaaaag	cagctggaaa	tggacaacca	caatatgcat	aaatctaact	cctaccatca	2340
gctacacact	gcttgacata	tattgttaga	agcacctcgc	atttgtgggt	tctcttaagc	2400
aaaatacttg	cattaggtct	cagctggggc	tgtgcatcag	gcggtttgag	aaatattcaa	2460
ttctcagcag	aagccagaat	ttgaattccc	tcatctttta	ggaatcattt	accaggtttg	2520
gagaggattc	agacagctca	ggtgctttca	ctaatgtctc Page		tccctctttg	2580

tytteatyya taytet	caata aataatgtta	tctttgaact	gatgctcata	ggagagaata	2640
taagaactct gagtga	atatc aacattaggg	attcaaagaa	atattagatt	taagctcaca	2700
ctggtcaaaa ggaaco	caaga tacaaagaac	tctgagctgt	catcgtcccc	atctctgtga	2760
gccacaacca acagca	aggac ccaacgcatg	tctgagatcc	ttaaatcaag	gaaaccagtg	2820
tcatgagttg aattct	tccta ttatggatgo	tagcttctgg	ccatctctgg	ctctcctctt	2880
gacacatatt agctto	ctagc ctttgcttcc	acgactttta	tcttttctcc	aacacatcgc	2940
ttaccaatcc tctctc	ctgct ctgttgcttt	ggacttcccc	acaagaattt	caacgactct	3000
caagtctttt cttcca	atccc caccactaac	ctgaattgcc	tagaccctta	tttttattaa	3060
tttccaatag atgctg	gccta tgggctaata	ttgctttaga	tgaacattag	atatttaaag	3120
tctaagaggt tcaaaa	atcca actcattato	ttctctttct	ttcacctccc	ctgctcctct	3180
ccctatatta ctgatt	tgact gaacaggatg	gtccccaaga	tgccagtcaa	atgagaaacc	3240
cagtggctcc ttgtgg	gatca tgcatgcaag	actgctgaag	ccagaggatg	actgattacg	3300
cctcatgggt ggaggg	ggacc actcctgggc	cttcgtgatt	gtcaggagca	agacctgaga	3360
tgctccctgc cttcag	gtgtc ctctgcatct	cccctttcta	atgaagatcc	atagaatttg	3420
ctacatttga gaatto	ccaat taggaactca	catgttttat	ctgccctatc	aatttttaa	3480
acttgctgaa aattaa	agttt tttcaaaato	tgtccttgta	aattactttt	tcttacagtg	3540
	tcaac +++qa++c++	+a++>c>>c+	++		3582
tcttggcata ctata	icaac iligalicii	igitalaact	LL		3362
<210> 11 <211> 7130 <212> DNA <213> Homo sapie		tyctacaact			3362
<210> 11 <211> 7130 <212> DNA	ens			tgggagactc	60
<210> 11 <211> 7130 <212> DNA <213> Homo sapie <400> 11	ens tgctg cacgttggat	tttgaaatgc	tagggaactt		
<210> 11 <211> 7130 <212> DNA <213> Homo sapions <400> 11 gaattccaca ttgtt	ens tgctg cacgttggat aggat ctgtggacca	tttgaaatgc caagatcttt	tagggaactt ttatgatgac	agtagcaatg	60
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atatttctgg gctaga	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggag	tttgaaatgc caagatcttt tgcaaggaaa	tagggaactt ttatgatgac agaatgtact	agtagcaatg aaatgccaag	60 120
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atattctgg gctaga tatctgtgga gctgga	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggag gcatg aggaataaaa	tttgaaatgc caagatcttt tgcaaggaaa gttctagttt	tagggaactt ttatgatgac agaatgtact ctggtctcag	agtagcaatg aaatgccaag agtggtgcag	60 120 180
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atattctgg gctaga tatctgtgga gctgga acatctattt caggag	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggag gcatg aggaataaaa acaat ctcctgagtg	tttgaaatgc caagatcttt tgcaaggaaa gttctagttt	tagggaactt ttatgatgac agaatgtact ctggtctcag agggcacact	agtagcaatg aaatgccaag agtggtgcag gggtcttgga	60 120 180 240
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atattctgg gctaga tatctgtgga gctgga acatctattt caggag ggatcaggga gtctca	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggac gcatg aggaataaaa acaat ctcctgagtc gcacg tgaggctttc	tttgaaatgc caagatcttt tgcaaggaaa gttctagttt ctggtgtctt	tagggaactt ttatgatgac agaatgtact ctggtctcag agggcacact cggggatcgt	agtagcaatg aaatgccaag agtggtgcag gggtcttgga acccaccccc	60 120 180 240 300
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atattctgg gctaga tatctgtgga gctgga acatctattt caggag ggatcaggga gtctca gtgcaaagga tctagg	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggac gcatg aggaataaaa acaat ctcctgagtg gcacg tgaggctttg ctggg catgtccct	tttgaaatgc caagatcttt tgcaaggaaa gttctagttt ctggtgtctt tatgaagaat	tagggaactt ttatgatgac agaatgtact ctggtctcag agggcacact cggggatcgt cccctagatg	agtagcaatg aaatgccaag agtggtgcag gggtcttgga acccaccccc aagtctccat	60 120 180 240 300 360
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atattctgg gctaga tatctgtgga gctgga acatctattt caggag ggatcaggga gtctca gtgcaaagga tctagg tgtttctgtt tcatca	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggac gcatg aggaataaaa acaat ctcctgagtg gcacg tgaggctttg ctggg catgtctcct ggtgc atccagggtg	tttgaaatgc caagatcttt tgcaaggaaa gttctagttt ctggtgtctt tatgaagaat ctgcctttgt atctagtaat	tagggaactt ttatgatgac agaatgtact ctggtctcag agggcacact cggggatcgt cccctagatg tgcagaacag	agtagcaatg aaatgccaag agtggtgcag gggtcttgga acccaccccc aagtctccat caagtgctag	60 120 180 240 300 360 420
<210> 11 <211> 7130 <212> DNA <213> Homo sapid <400> 11 gaattccaca ttgttt atattctgg gctaga tatctgtgga gctgga acatctattt caggag ggatcaggga gtctca gtgcaaagga tctagg tgtttctgtt tcatca gagctacaag ggcctg gagctacaag ggcctg	ens tgctg cacgttggat aggat ctgtggacca attct gggttgggag gcatg aggaataaaa acaat ctcctgagtg gcacg tgaggctttg ctggg catgtctcct ggtgc atccagggtg cacag ctctgggtgt	tttgaaatgc caagatcttt tgcaaggaaa gttctagttt ctggtgtctt tatgaagaat ctgcctttgt atctagtaat	tagggaactt ttatgatgac agaatgtact ctggtctcag agggcacact cggggatcgt cccctagatg tgcagaacag tgtccagcct	agtagcaatg aaatgccaag agtggtgcag gggtcttgga acccaccccc aagtctccat caagtgctag ccagcagcat	60 120 180 240 300 360 420 480

agagctgtgt	caccatgtgg	gtcccggttg	tcttcctcac	cctgtccgtg	acgtggattg	720
gtgagagggg	ccatggttgg	ggggatgcag	gagagggagc	cagccctgac	tgtcaagctg	780
aggctctttc	cccccaacc	cagcacccca	gcccagacag	ggagctgggc	tcttttctgt	840
ctctcccagc	cccacttcaa	gcccataccc	ccagcccctc	catattgcaa	cagtcctcac	900
tcccacacca	ggtccccgct	ccctcccact	taccccagaa	ctttctcccc	attgcccagc	960
cagctccctg	ctcccagctg	ctttactaaa	ggggaagttc	ctgggcatct	ccgtgtttct	1020
ctttgtgggg	ctcaaaacct	ccaaggacct	ctctcaatgc	cattggttcc	ttggaccgta	1080
tcactggtcc	atctcctgag	cccctcaatc	ctatcacagt	ctactgactt	ttcccattca	1140
gctgtgagtg	tccaacccta	tcccagagac	cttgatgctt	ggcctcccaa	tcttgcccta	1200
ggatacccag	atgccaacca	gacacctcct	tcttcctagc	caggctatct	ggcctgagac	1260
aacaaatggg	tccctcagtc	tggcaatggg	actctgagaa	ctcctcattc	cctgactctt	1320
agccccagac	tcttcattca	gtggcccaca	ttttccttag	gaaaaacatg	agcatcccca	1380
gccacaactg	ccagctctct	gattccccaa	atctgcatcc	ttttcaaaac	ctaaaaacaa	1440
aaagaaaaac	aaataaaaca	aaaccaactc	agaccagaac	tgttttctca	acctgggact	1500
tcctaaactt	tccaaaacct	tcctcttcca	gcaactgaac	ctggccataa	ggcacttatc	1560
cctggttcct	agcacccctt	atcccctcag	aatccacaac	ttgtaccaag	tttcccttct	1620
cccagtccaa	gaccccaaat	caccacaaag	gacccaatcc	ccagactcaa	gatatggtct	1680
gggcgctgtc	ttgtgtctcc	taccctgatc	cctgggttca	actctgctcc	cagagcatga	1740
agcctctcca	ccagcaccag	ccaccaacct	gcaaacctag	ggaagattga	cagaattccc	1800
agcctttccc	agctcccct	gcccatgtcc	caggactccc	agccttggtt	ctctgccccc	1860
gtgtcttttc	aaacccacat	cctaaatcca	tctcctatcc	gagtccccca	gttccccctg	1920
tcaaccctga	ttcccctgat	ctagcacccc	ctctgcaggc	gctgcgcccc	tcatcctgtc	1980
tcggattgtg	ggaggctggg	agtgcgagaa	gcattcccaa	ccctggcagg	tgcttgtggc	2040
ctctcgtggc	agggcagtct	gcggcggtgt	tctggtgcac	ccccagtggg	tcctcacagc	2100
tgcccactgc	atcaggaagt	gagtaggggc	ctggggtctg	gggagcaggt	gtctgtgtcc	2160
cagaggaata	acagctgggc	attttcccca	ggataacctc	taaggccagc	cttgggactg	2220
ggggagagag	ggaaagttct	ggttcaggtc	acatggggag	gcagggttgg	ggctggacca	2280
ccctccccat	ggctgcctgg	gtctccatct	gtgtccctct	atgtctcttt	gtgtcgcttt	2340
cattatgtct	cttggtaact	ggcttcggtt	gtgtctctcc	gtgtgactat	tttgttctct	2400
ctctccctct	cttctctgtc	ttcagtctcc	atatctcccc	ctctctctgt	ccttctctgg	2460
tccctctcta	gccagtgtgt	ctcaccctgt	atctctctgc	caggctctgt	ctctcggtct	2520

•							
	ctgtctcacc	tgtgccttct	ccctactgaa	1195781 cacacgcacg		ggggggaccc	2580
	tgagaaaagg	aagggctttg	gctgggcgcg	gtggctcaca	cctgtaatcc	cagcactttg	2640
	ggaggccaag	gcaggtagat	cacctgaggt	caggagttcg	agaccagcct	ggccaactgg	2700
	tgaaacccca	tctctactaa	aaatacaaaa	aattagccag	gcgtggtggc	gcatgcctgt	2760
	agtcccagct	actcaggagg	ctgagggagg	agaattgctt	gaacctggga	ggttgaggtt	2820
	gcagtgagcc	gagaccgtgc	cactgcactc	cagcctgggt	gacagagtga	gactccgcct	2880
	caaaaaaaa	aaaaaaaaa	aaaaaaaaa	agaaaagaaa	agaaaagaaa	aggaatcttt	2940
	tatccctgat	gtgtgtgggt	atgagggtat	gagagggccc	ctctcactcc	attccttctc	3000
	caggacatcc	ctccactctt	gggagacaca	gagaagggct	ggttccagct	ggagctggga	3060
	ggggcaattg	agggaggagg	aaggagaagg	gggaaggaaa	acagggtatg	ggggaaagga	3120
	ccctggggag	cgaagtggag	gatacaacct	tgggcctgca	ggccaggcta	cctacccact	3180
	tggaaaccca	cgccaaagcc	gcatctacag	ctgagccact	ctgaggcctc	ccctccccgg	3240
	cggtccccac	tcagctccaa	agtctctctc	ccttttctct	cccacacttt	atcatccccc	3300
	ggattcctct	ctacttggtt	ctcattcttc	ctttgacttc	ctgcttccct	ttctcattca	3360
	tctgtttctc	actttctgcc	tggttttgtt	cttctctctc	tctttctctg	gcccatgtct	3420
	gtttctctat	gtttctgtct	tttctttctc	atcctgtgta	ttttcggctc	accttgtttg	3480
	tcactgttct	cccctctgcc	ctttcattct	ctctgtcctt	ttaccctctt	cctttttccc	3540
	ttggtttctc	tcagtttctg	tatctgccct	tcaccctctc	acactgctgt	ttcccaactc	3600
	gttgtctgta	tttttggcct	gaactgtgtc	ttccccaacc	ctgtgttttt	ctcactgttt	3660
	ctttttctct	tttggagcct	cctccttgct	cctctgtccc	ttctctcttt	ccttatcatc	3720
	ctcgctcctc	attcctgcgt	ctgcttcctc	cccagcaaaa	gcgtgatctt	gctgggtcgg	3780
	cacagcctgt	ttcatcctga	agacacaggc	caggtatttc	aggtcagcca	cagcttccca	3840
	cacccgctct	acgatatgag	cctcctgaag	aatcgattcc	tcaggccagg	tgatgactcc	3900
	agccacgacc	tcatgctgct	ccgcctgtca	gagcctgccg	agctcacgga	tgctgtgaag	3960
	gtcatggacc	tgcccaccca	ggagccagca	ctggggacca	cctgctacgc	ctcaggctgg	4020
	ggcagcattg	aaccagagga	gtgtacgcct	gggccagatg	gtgcagccgg	gagcccagat	4080
	gcctgggtct	gagggaggag	gggacaggac	tcctgggtct	gagggaggag	ggccaaggaa	4140
	ccaggtgggg	tccagcccac	aacagtgttt	ttgcctggcc	cgtagtcttg	accccaaaga	4200
	aacttcagtg	tgtggacctc	catgttattt	ccaatgacgt	gtgtgcgcaa	gttcaccctc	4260
	agaaggtgac	caagttcatg	ctgtgtgctg	gacgctggac	agggggcaaa	agcacctgct	4320
	cggtgagtca	tccctactcc	caagatcttg	aggggaaagg	tgagtgggga	ccttaattct	4380
	gggctggggt	ctagaagcca	acaaggcgtc	tgcctcccct Page	gctccccagc 8	tgtagccatg	4440
				3 -			

ccacctcccc	gtgtctcatc	tcattccctc	cttccctctt	ctttgactcc	ctcaaggcaa	4500
taggttattc	ttacagcaca	actcatctgt	tcctgcgttc	agcacacggt	tactaggcac	4560
ctgctatgca	cccagcactg	ccctagagcc	tgggacatag	cagtgaacag	acagagagca	4620
gcccctccct	tctgtagccc	ccaagccagt	gaggggcaca	ggcaggaaca	gggaccacaa	4680
cacagaaaag	ctggagggtg	tcaggaggtg	atcaggctct	cggggaggga	gaaggggtgg	4740
ggagtgtgac	tgggaggaga	catcctgcag	aaggtgggag	tgagcaaaca	cctgccgcag	4800
gggaggggag	ggccctgcgg	cacctggggg	agcagaggga	acagcatctg	gccaggcctg	4860
ggaggagggg	cctagagggc	gtcaggagca	gagaggaggt	tgcctggctg	gagtgaagga	4920
tcggggcagg	gtgcgagagg	gaagaaagga	ccctcctgc	agggcctcac	ctgggccaca	4980
ggaggacact	gcttttcctc	tgaggagtca	ggaactgtgg	atggtgctgg	acagaagcag	5040
gacagggcct	ggctcaggtg	tccagaggct	gccgctggcc	tccctatggg	atcagactgc	5100
agggagggag	ggcagcaggg	atgtggaggg	agtgatgatg	gggctgacct	gggggtggct	5160
ccaggcattg	tccccacctg	ggcccttacc	cagcctccct	cacaggctcc	tggccctcag	5220
tctctccct	ccactccatt	ctccacctac	ccacagtggg	tcattctgat	caccgaactg	5280
accatgccag	ccctgccgat	ggtcctccat	ggctccctag	tgccctggag	aggaggtgtc	5340
tagtcagaga	gtagtcctgg	aaggtggcct	ctgtgaggag	ccacggggac	agcatcctgc	5400
agatggtcct	ggcccttgtc	ccaccgacct	gtctacaagg	actgtcctcg	tggaccctcc	5460
cctctgcaca	ggagctggac	cctgaagtcc	cttccctacc	ggccaggact	ggagccccta	5520
cccctctgtt	ggaatccctg	cccaccttct	tctggaagtc	ggctctggag	acatttctct	5580
cttcttccaa	agctgggaac	tgctatctgt	tatctgcctg	tccaggtctg	aaagatagga	5640
ttgcccaggc	agaaactggg	actgacctat	ctcactctct	ccctgctttt	acccttaggg	5700
tgattctggg	ggcccacttg	tctgtaatgg	tgtgcttcaa	ggtatcacgt	catggggcag	5760
tgaaccatgt	gccctgcccg	aaaggccttc	cctgtacacc	aaggtggtgc	attaccggaa	5820
gtggatcaag	gacaccatcg	tggccaaccc	ctgagcaccc	ctatcaactc	cctattgtag	5880
taaacttgga	accttggaaa	tgaccaggcc	aagactcaag	cctccccagt	tctactgacc	5940
tttgtcctta	ggtgtgaggt	ccagggttgc	taggaaaaga	aatcagcaga	cacaggtgta	6000
gaccagagtg	tttcttaaat	ggtgtaattt	tgtcctctct	gtgtcctggg	gaatactggc	6060
catgcctgga	gacatatcac	tcaatttctc	tgaggacaca	gataggatgg	ggtgtctgtg	6120
ttatttgtgg	gatacagaga	tgaaagaggg	gtgggatcca	cactgagaga	gtggagagtg	6180
acatgtgctg	gacactgtcc	atgaagcact	gagcagaagc	tggaggcaca	acgcaccaga	6240
cactcacagc	aaggatggag	ctgaaaacat	aacccactct	gtcctggagg	cactgggaag	6300

1195781.txt 6360 cctagagaag gctgtgagcc aaggagggag ggtcttcctt tggcatggga tggggatgaa gtaaggagag ggactggacc ccctggaagc tgattcacta tggggggagg tgtattgaag 6420 6480 tcctccagac aaccctcaga tttgatgatt tcctagtaga actcacagaa ataaagagct 6540 cttatactgt ggtttattct ggtttgttac attgacagga gacacactga aatcagcaaa ggaaacaggc atctaagtgg ggatgtgaag aaaacaggga aaatctttca gttgttttct 6600 cccagtgggg tgttgtggac agcacttaaa tcacacagaa gtgatgtgtg accttgtgta 6660 tgaagtattt ccaactaagg aagctcacct gagccttagt gtccagagtt cttattgggg 6720 6780 gtctgtagga taggcatggg gtactggaat agctgacctt aacttctcag acctgaggtt cccaagagtt caagcagata cagcatggcc tagagcctca gatgtacaaa aacaggcatt 6840 6900 catcatgaat cgcactgtta gcatgaatca tctggcacgg cccaaggccc caggtatacc 6960 aaggcacttg ggccgaatgt tccaagggat taaatgtcat ctcccaggag ttattcaagg 7020 gtgagccctg tacttggaac gttcaggctt tgagcagtgc agggctgctg agtcaacctt 7080 ttactgtaca ggggggtgag ggaaagggag aagatgagga aaccgcctag ggatctggtt ctgtcttgtg gccgagtgga ccatggggct atcccaagaa ggaggaattc 7130 <210> 12 <211> 20 <212> DNA <213> Homo sapiens <400> 20 agcattccca accctggcag <210> 13 <211> 3923 <212> DNA <213> Homo sapiens <400> 13 60 acagaagaaa tagcaagtgc cgagaagctg gcatcagaaa aacagagggg agatttgtgt 120 ggctgcagcc gagggagacc aggaagatct gcatggtggg aaggacctga tgatacagag 180 gaattacaac acatatactt agtgtttcaa tgaacaccaa gataaataag tgaagagcta 240 gtccgctgtg agtctcctca gtgacacagg gctggatcac catcgacggc actttctgag 300 tactcagtgc agcaaagaaa gactacagac atctcaatgg caggggtgag aaataagaaa 360 ggctgctgac tttaccatct gaggccacac atctgctgaa atggagataa ttaacatcac tagaaacagc aagatgacaa tataatgtct aagtagtgac atgtttttgc acatttccag 420

CCCCtttaaa tatccacaca cacaggaagc acaaaaggaa gcacagagat ccctgggaga

aatgcccggc cgccatcttg ggtcatcgat gagcctcgcc ctgtgcctgg tcccgcttgt

gagggaagga cattagaaaa tgaattgatg tgttccttaa aggatgggca ggaaaacaga

Page 10

480

540

600

tcctgttgtg gatatttatt	tgaacgggat	tacagatttg	aaatgaagtc	acaaagtgag	660
cattaccaat gagaggaaaa	cagacgagaa	aatcttgatg	gcttcacaag	acatgcaaca	720
aacaaaatgg aatactgtga	tgacatgagg	cagccaagct	ggggaggaga	taaccacggg	780
gcagagggtc aggattctgg	ccctgctgcc	taaactgtgc	gttcataacc	aaatcatttc	840
atatttctaa ccctcaaaad	aaagctgttg	taatatctga	tctctacggt	tccttctggg	900
cccaacattc tccatatatc	cagccacact	catttttaat	atttagttcc	cagatctgta	960
ctgtgacctt tctacactg	agaataacat	tactcatttt	gttcaaagac	ccttcgtgtt	1020
gctgcctaat atgtagctga	ctgtttttcc	taaggagtgt	tctggcccag	gggatctgtg	1080
aacaggctgg gaagcatct	aagatctttc	cagggttata	cttactagca	cacagcatga	1140
tcattacgga gtgaattato	taatcaacat	catcctcagt	gtctttgccc	atactgaaat	1200
tcatttccca cttttgtgc	cattctcaag	acctcaaaat	gtcattccat	taatatcaca	1260
ggattaactt tttttttaa	cctggaagaa	ttcaatgtta	catgcagcta	tgggaattta	1320
attacatatt ttgttttcca	gtgcaaagat	gactaagtcc	tttatccctc	ccctttgttt	1380
gattttttt ccagtataaa	gttaaaatgc	ttagccttgt	actgaggctg	tatacagcac	1440
agcctctccc catccctcc	gccttatctg	tcatcaccat	caacccctcc	cataccacct	1500
aaacaaaațc taacttgtaa	ttccttgaac	atgtcaggac	atacattatt	ccttctgcct	1560
gagaagctct tccttgtct	ttaaatctag	aatgatgtaa	agttttgaat	aagttgacta	1620
tcttacttca tgcaaagaa	ggacacatat	gagattcatc	atcacatgag	acagcaaata	1680
ctaaaagtgt aatttgatta	taagagttta	gataaatata	tgaaatgcaa	gagccacaga	1740
gggaatgttt atggggcac	tttgtaagcc	tgggatgtga	agcaaaggca	gggaacctca	1800
tagtatctta tataatata	ttcatttctc	tatctctatc	acaatatcca	acaagctttt	1860
cacagaattc atgcagtgca	aatccccaaa	ggtaaccttt	atccatttca	tggtgagtgc	1920
gctttagaat tttggcaaa	catactggtc	acttatctca	actttgagat	gtgtttgtcc	1980
ttgtagttaa ttgaaagaa	tagggcactc	ttgtgagcca	ctttagggtt	cactcctggc	2040
aataaagaat ttacaaaga	g ctactcagga	ccagttgtta	agagctctgt	gtgtgtgtgt	2100
gtgtgtgtgt gagtgtaca	gccaaagtgt	gcctctctct	cttgacccat	tatttcagac	2160
ttaaaacaag catgttttc	a aatggcacta	tgagctgcca	atgatgtatc	accaccatat	2220
ctcattattc tccagtaaa	gtgataataa	tgtcatctgt	taacataaaa	aaagtttgac	2280
ttcacaaaag cagctggaa	tggacaacca	caatatgcat	aaatctaact	cctaccatca	2340
gctacacact gcttgacat	tattgttaga	agcacctcgc	atttgtgggt	tctcttaagc	2400
aaaatacttg cattaggtc	cagctggggc	tgtgcatcag	gcggtttgag	aaatattcaa	2460

ttctcagcag aagccagaat ttgaattccc tcatctttta ggaatcattt accaggtttg 2520 gagaggattc agacagctca ggtgctttca ctaatgtctc tgaacttctg tccctctttg 2580 2640 tgttcatgga tagtccaata aataatgtta tctttgaact gatgctcata ggagagaata taagaactct gagtgatatc aacattaggg attcaaagaa atattagatt taagctcaca 2700 2760 ctggtcaaaa ggaaccaaga tacaaagaac tctgagctgt catcgtcccc atctctgtga 2820 gccacaacca acagcaggac ccaacgcatg tctgagatcc ttaaatcaag gaaaccagtg 2880 tcatgagttg aattctccta ttatggatgc tagcttctgg ccatctctgg ctctcctctt 2940 gacacatatt agcttctagc ctttgcttcc acgactttta tcttttctcc aacacatcgc 3000 ttaccaatcc tctctctgct ctgttgcttt ggacttcccc acaagaattt caacgactct caagtctttt cttccatccc caccactaac ctgaatgcct agacccttat ttttattaat 3060 3120 ttccaataga tgctgcctat gggctatatt gctttagatg aacattagat atttaaagct 3180 caagaggttc aaaatccaac tcattatctt ctctttcttt cacctccctg ctcctctcc tatattactg attgcactga acagcatggt ccccaatgta gccatgcaaa tgagaaaccc 3240 3300 agtggctcct tgtggtacat gcatgcaaga ctgctgaagc cagaaggatg actgattacg 3360 cctcatgggt ggaggggacc actcctgggc cttcgtgatt gtcaggagca agacctgaga tgctccctgc cttcagtgtc ctctgcatct cccctttcta atgaagatcc atagaatttg 3420 3480 ctacatttga gaattccaat taggaactca catgtttat ctgccctatc aatttttaa acttgctgaa aattaagttt tttcaaaatc tgtccttgta aattactttt tcttacagtg 3540 tcttggcata ctatatcaac tttgattctt tgttacaact tttcttactc ttttatcacc 3600 3660 aaagtggctt ttattctctt tattattatt attttctttt actactatat tacgttgtta 3720 ttattttgtt ctctatagta tcaatttatt tgatttagtt tcaatttatt tttattgctg 3780 acttttaaaa taagtgattc ggggggtggg agaacagggg agggagagca ttaggacaaa tacctaatgc atgtgggact taaaacctag atgatgggtt gataggtgca gcaaaccact 3840 3900 atggcacacg tatacctgtg taacaaacct acacattctg cacatgtatc ccagaacgta 3923 aagtaaaatt taaaaaaaag tga